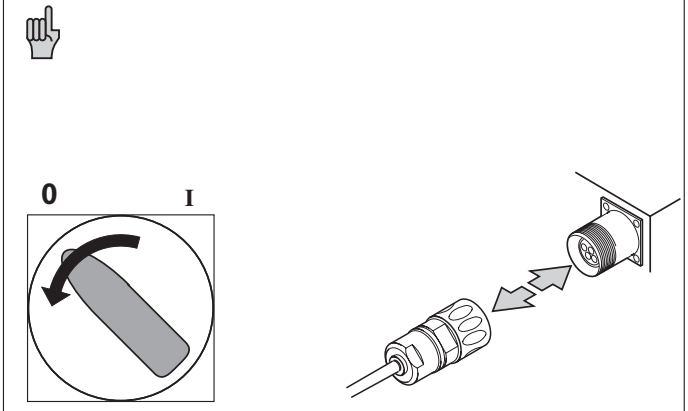
HEIDENHAIN

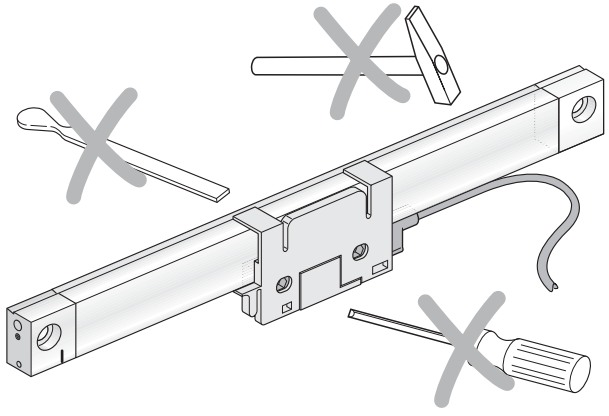
Montageanleitung
Mounting Instructions
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje

LC 481 EnDat

2/2002

DIN EN 100 015 – 1
CECC 00015 – 1





Maße in mm
Dimensions in mm
Cotes en mm
Dimensioni in mm
Dimensiones en mm

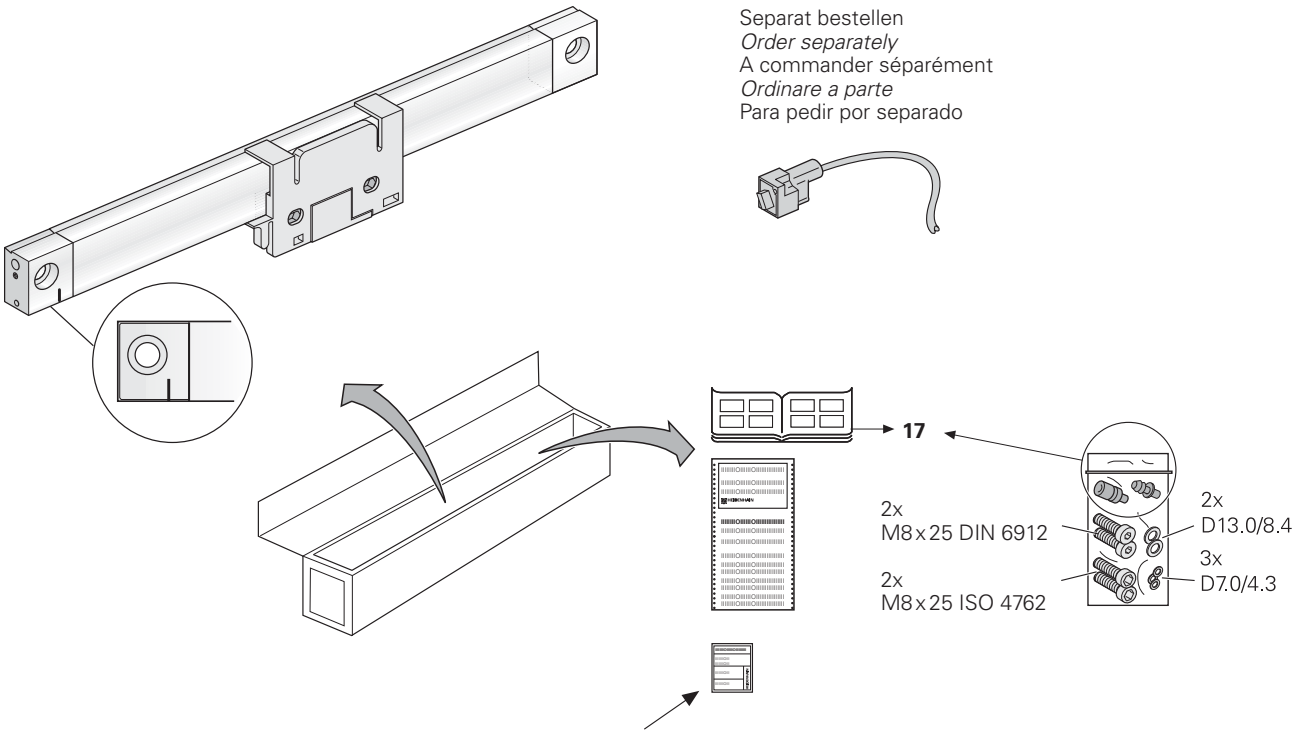
Die Inbetriebnahme des LC 481 erfordert eine richtige Parametrierung des Messgerätes (Gefahr von Sach- und Personenschäden). Zur richtigen Parametrierung nehmen Sie bitte Kontakt zum Hersteller der Maschine auf.

The parameters of the LC 481 must be correctly configured for proper function. Improper configuration may result in damage to the equipment or even personal injury. Please contact the machine manufacture for the correct parameter configuration.

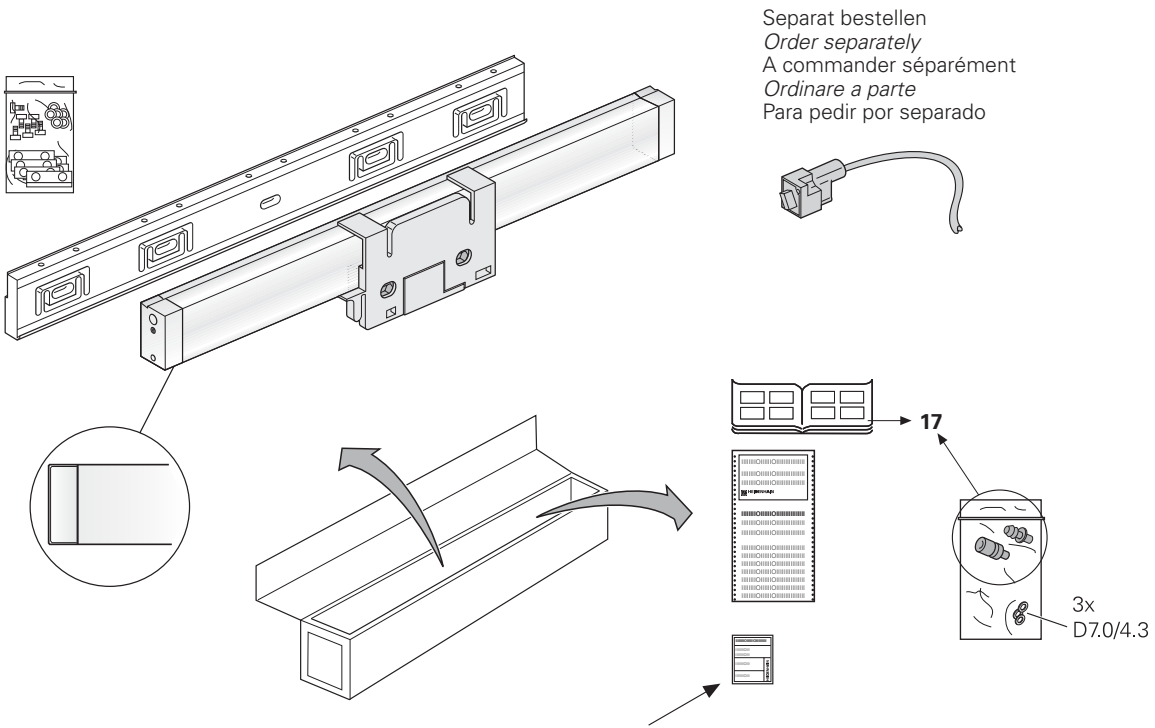
La mise en route du LC 481 nécessite un paramétrage correct du système de mesure (risque matériels et corporels). Pour effectuer le paramétrage correctement, prenez S.V.P. contact avec le constructeur de la machine.

La messa in funzione della LC 481 richiede una corretta parametrizzazione del sistema di misura (rischio di danni alle cose e alle persone). Per una corretta parametrizzazione mettersi in contatto con il costruttore della macchina.

La puesta en marcha de la LC 481 requiere una parametrización correcta del sistema de medida (peligro de daños en cosas y personas). Para la parametrización correcta contacten con el constructor de la máquina.



Bei Montage bitte Geräteschild-Aufkleber anbringen (Schaltschrank, Maschinen-Handbuch usw.)
Apply the encoder ID label to an appropriate surface, e.g. the electrical cabinet or machine manual
lors du montage, accoler S.V.P. l'étiquette signalétique de l'appareil (armoire électrique, manuel de la machine, etc.)
completato il montaggio, ricordarsi di applicare l'etichetta (manuale della macchina, quadro elettrico)
por favor, durante el montaje, colocar el adhesivo del letrero del aparato (armario eléctrico, modo de empleo de la máquina, etc.)



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Apply the encoder ID label to an appropriate surface, e.g. the electrical cabinet or machine manual
lors du montage, accoler S.V.P. l'étiquette signalétique de l'appareil (armoire électrique, manuel de la machine, etc.)
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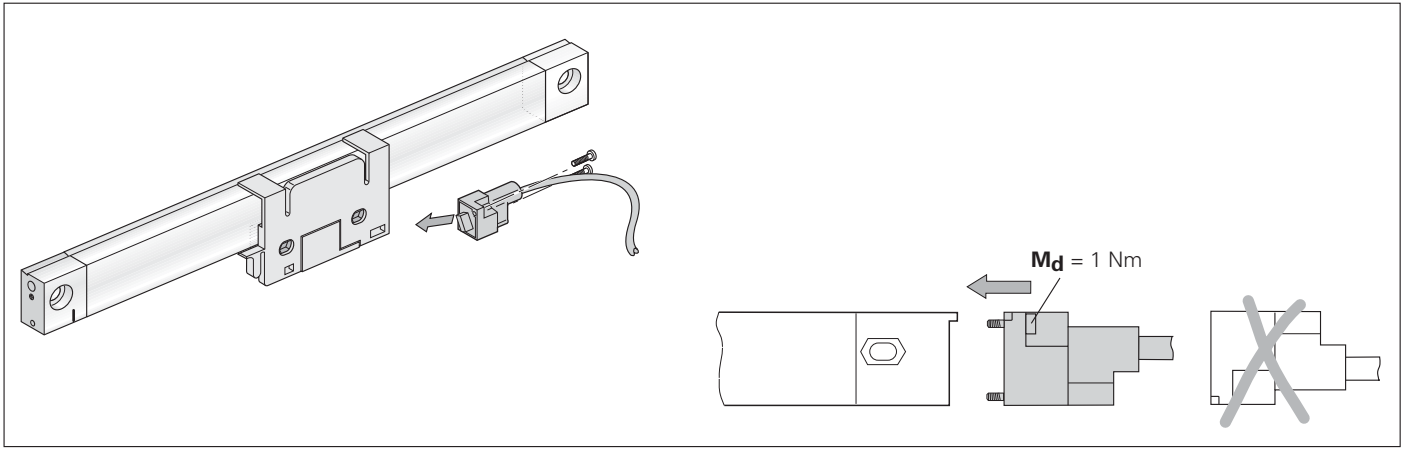
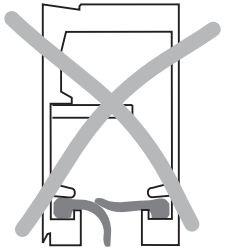
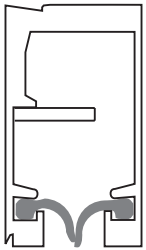
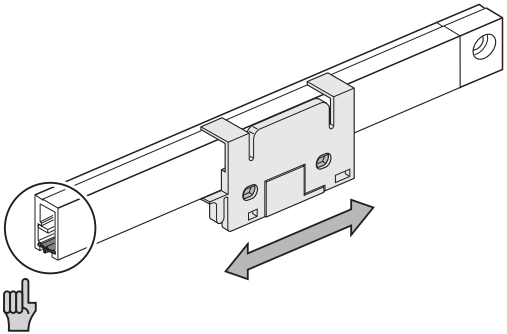
por favor, durante el montaje, colocar el adhesivo del letrero del aparato (armario eléctrico, modo de empleo de la máquina, etc.)

Kabelanschluss · *Cable Connection* · Raccordement du cable · *Cavo di colleganto* · Conexión de cable

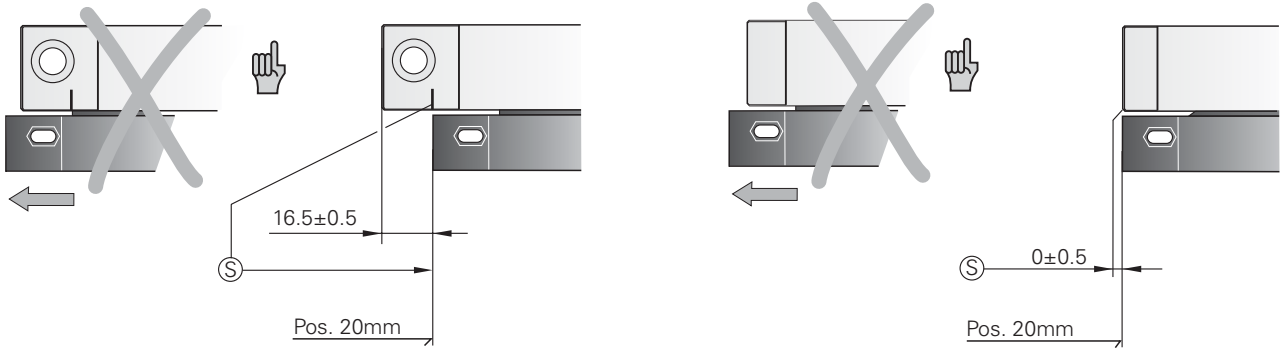




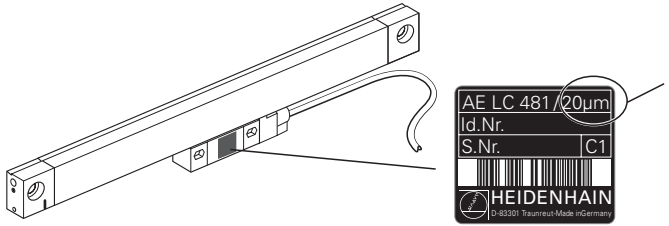




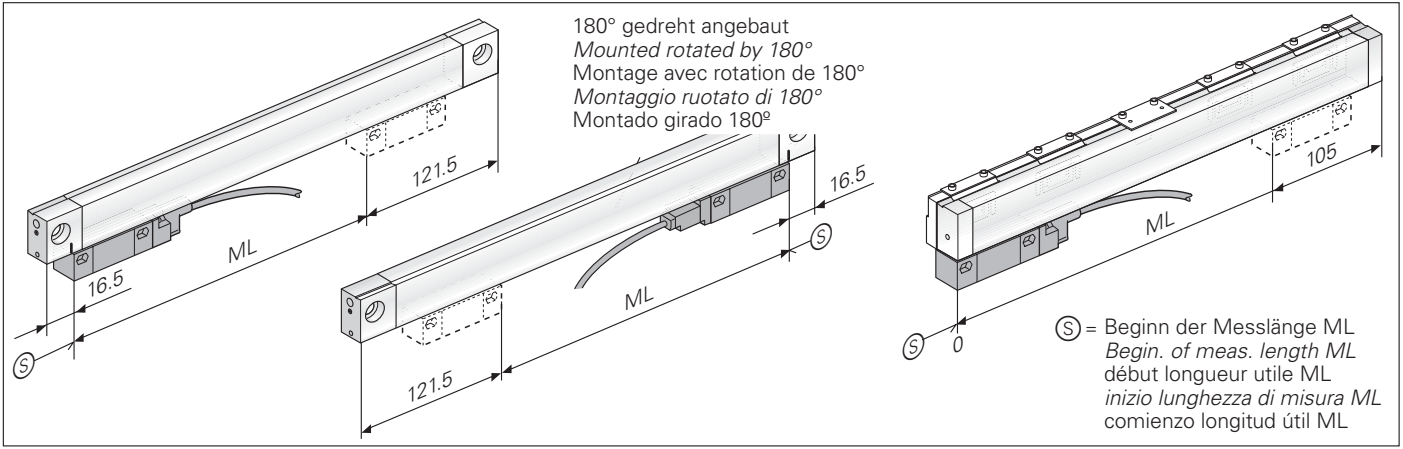
Achtung: Nur mit Transportsicherung manuell verfahren!
Caution: *Move manually only with the shipping brace!*
Attention: déplacement manuel seulement avec sécurité de transport!
Attenzione: *Muovere manualmente solo con dispositivo di sicurezza per il trasporto installato*
¡Atención: Desplazar manualmente sólo con seguro de transporte!

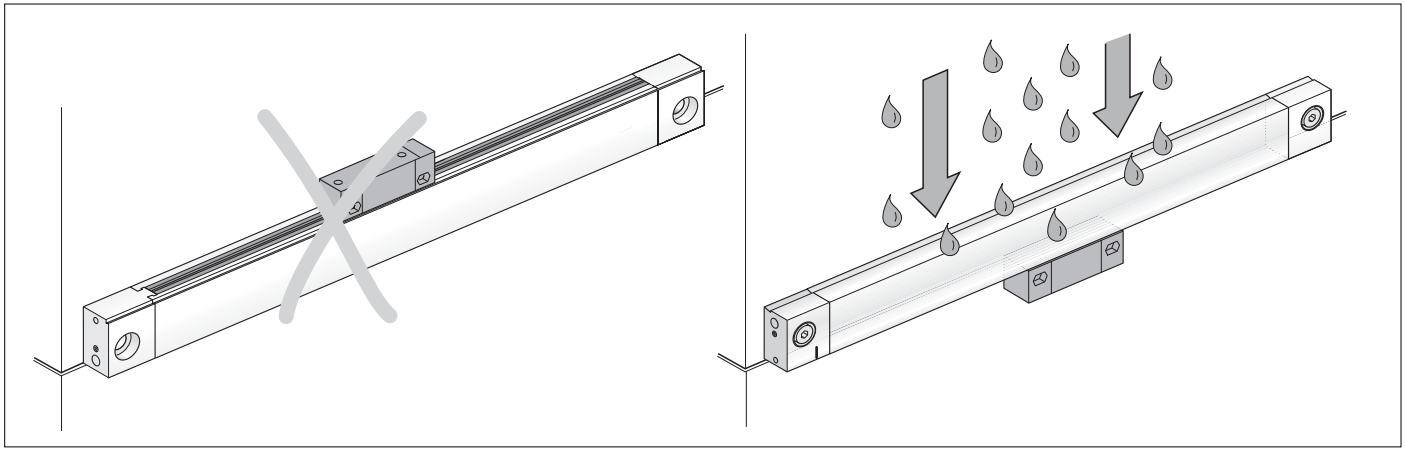


Ⓢ = Der Absolutwert beim Beginn der Messlängen beträgt 20 mm. Je nach Auflösung errechnet sich der Positionswert.
At the beginning of the measuring lengths, the absolute value is 20 mm. The calculated position value depends on the resolution.
La valeur absolue au début des longueurs de mesure est de 20 mm. La valeur de position est calculée en fonction de la résolution.
All'inizio della corsa utile, il valore assoluto della posizione è di 20 mm. Il calcolo del valore di posizione dipende dalla risoluzione.
Al comienzo del curso útil, el valor absoluto es de 20 mm de los extremos. El valor de posición se calcula en función de la resolución.



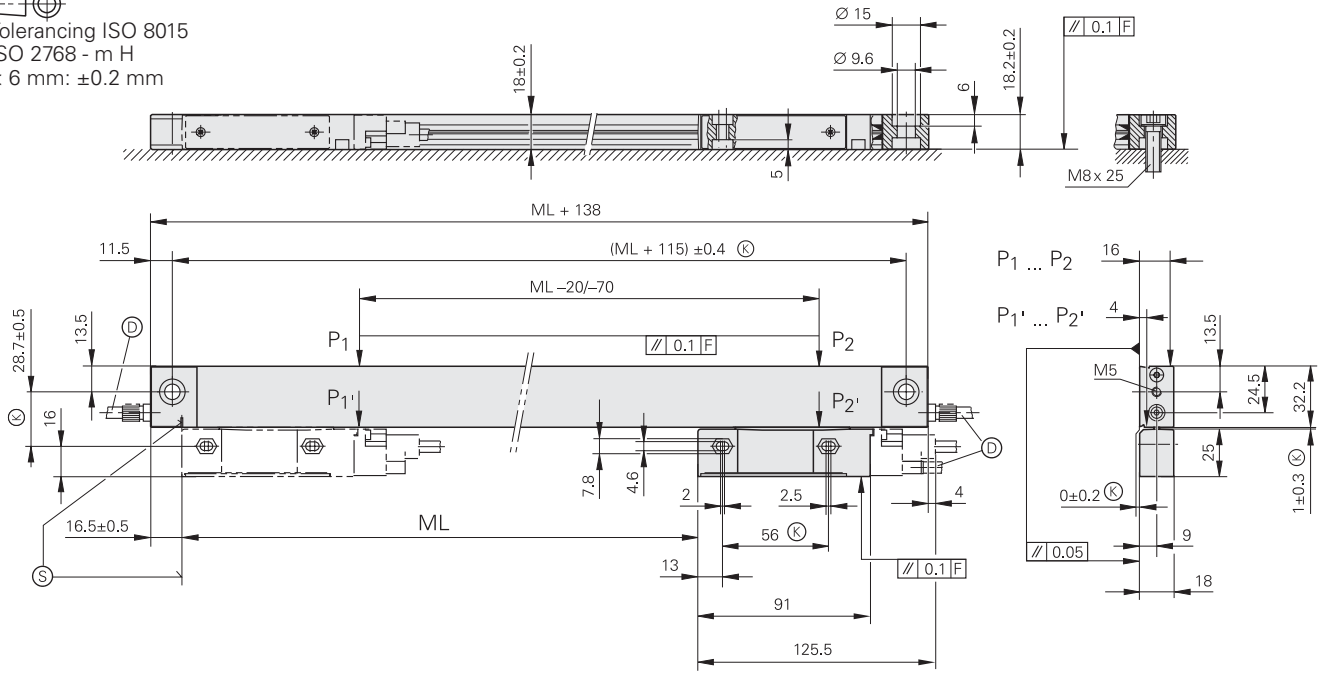
Signalperiode 20 µm
Signal period 20 µm
Période de signal 20 µm
Periodo del segnale 20 µm
Periodo de señal 20 µm


180° gedreht angebaut
Mounted rotated by 180°
Montage avec rotation de 180°
Montaggio ruotato di 180°
Montado girado 180º
121.5
16.5
ML
S
121.5
16.5
ML
S
105
ML
S
0
S = Beginn der Messlänge ML
Begin. of meas. length ML
début longueur utile ML
inizio lunghezza di misura ML
comienzo longitud útil ML



mm

Tolerancing ISO 8015
ISO 2768 - m H
< 6 mm: ±0.2 mm



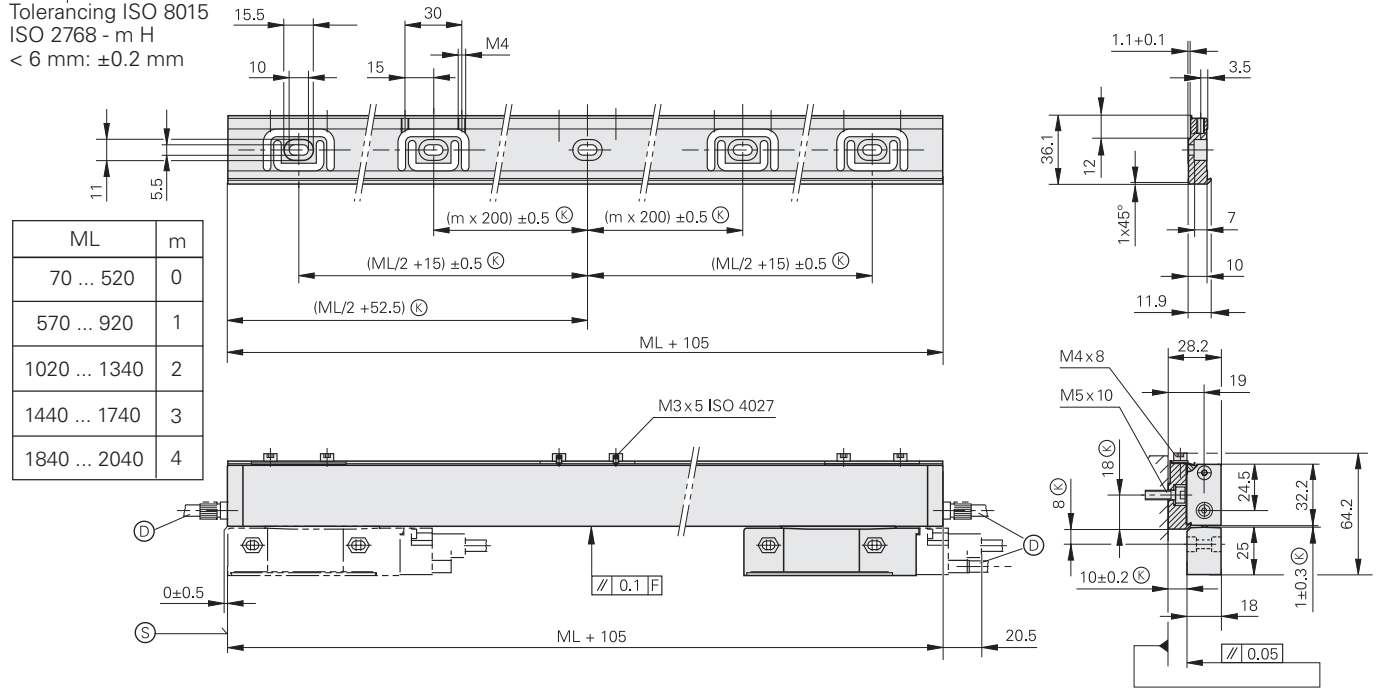
P = Messpunkte zum Ausrichten
Gauging points for alignment
points de mesure pour dé gauchissage
punti di misura per allineamento
puntos medición alineamiento

Ⓢ = Beginn der Messlänge ML
Begin. of meas. length ML
début longueur utile ML
inizio lunghezza di misura ML
comienzo longitud útil ML

Ⓓ = Druckluftanschluss
Compressed air inlet
raccordement d´air comprimé
ingresso per pressurizzazione
conexión de aire comprimido

mm

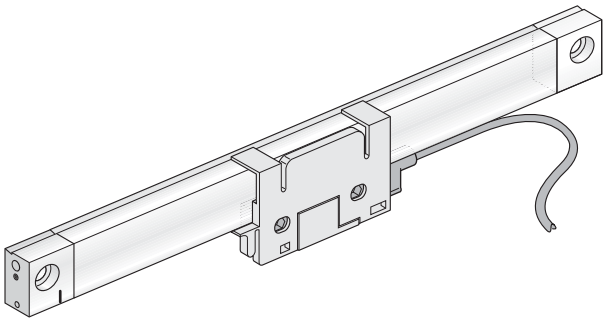
Tolerancing ISO 8015
ISO 2768 - m H
< 6 mm: ±0.2 mm

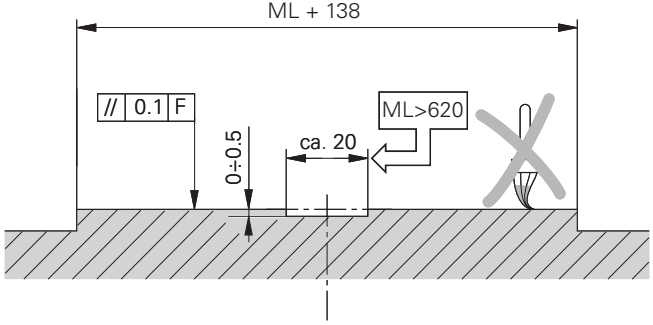


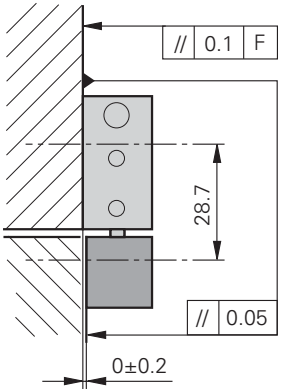
ML	m
70 ... 520	0
570 ... 920	1
1020 ... 1340	2
1440 ... 1740	3
1840 ... 2040	4

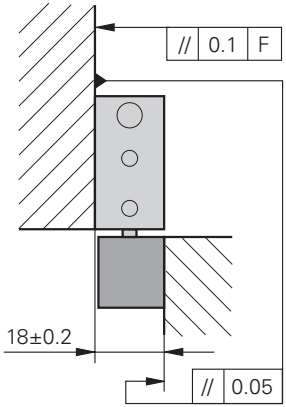
Ⓚ = Kundenseitige Anschlussmaße
Required mating dimensions
conditions requises pour le montage
dimensioni di collegamento lato cliente
cotas de montaje requeridas

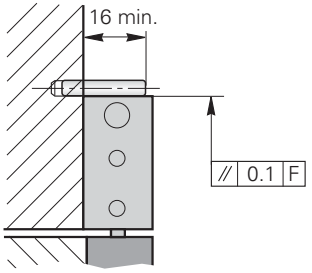
F = Maschinenführung
Machine guideway
guidage de la machine
guida della macchina
guía de la máquina



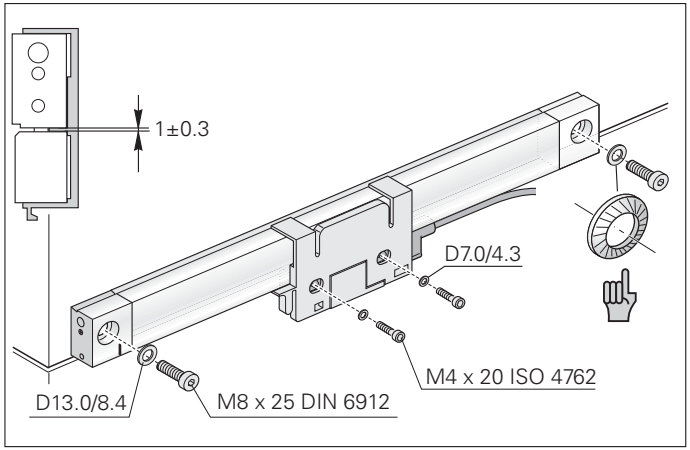


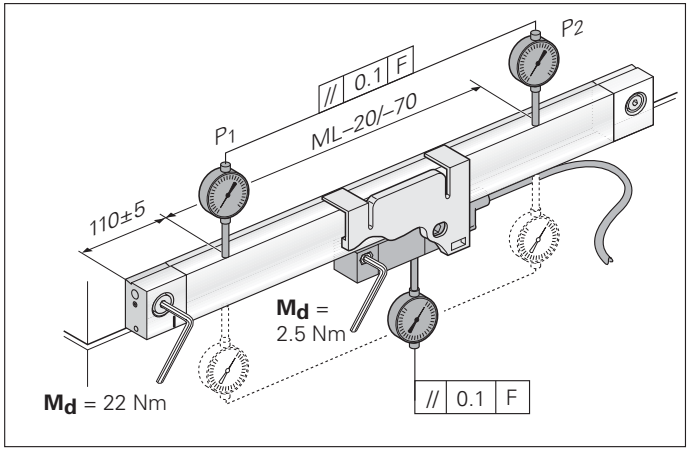


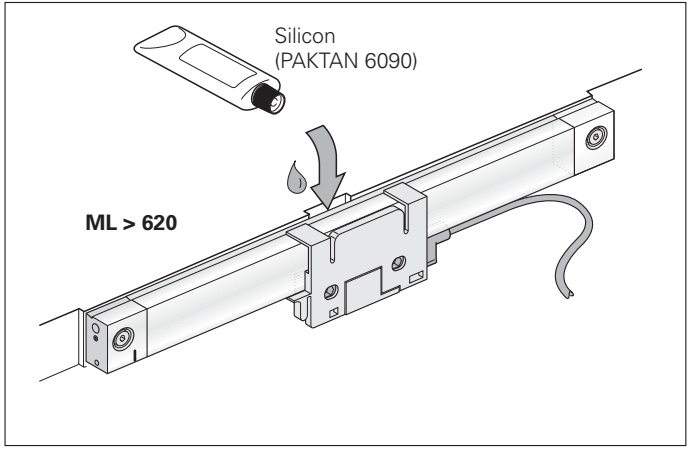


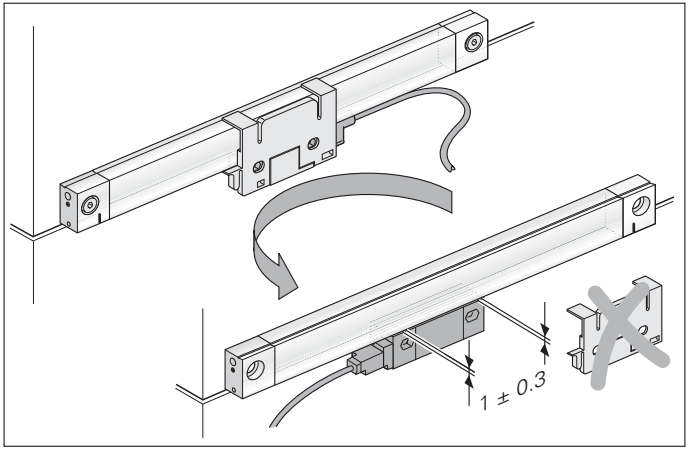


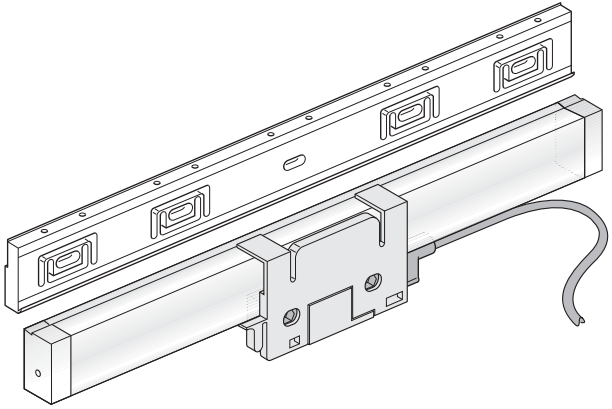
weitere Anbaumöglichkeit mit Anschlagstiften
Additional mounting option with stop pins
autre possibilité de montage avec goupilles d'arrêt
altra possibilità di montaggio con permo di battuta
otra posibilidad de montaje con espigas de ajuste

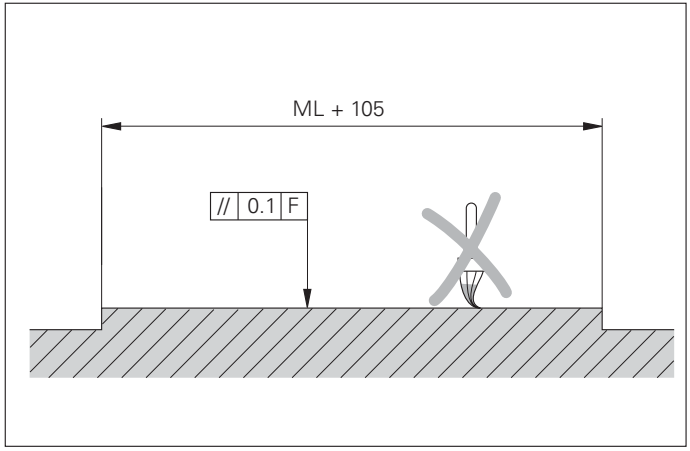

1±0.3
D7.0/4.3
M4 x 20 ISO 4762
D13.0/8.4
M8 x 25 DIN 6912

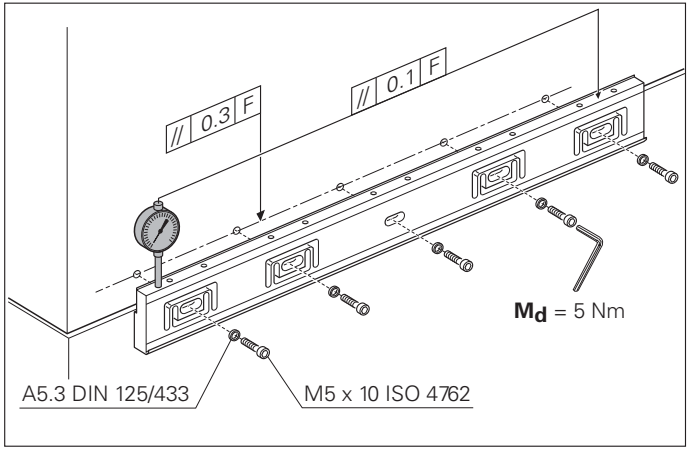

P2
// 0.1 F
P1
ML–20/–70
110±5
Md =
2.5 Nm
Md = 22 Nm
// 0.1 F

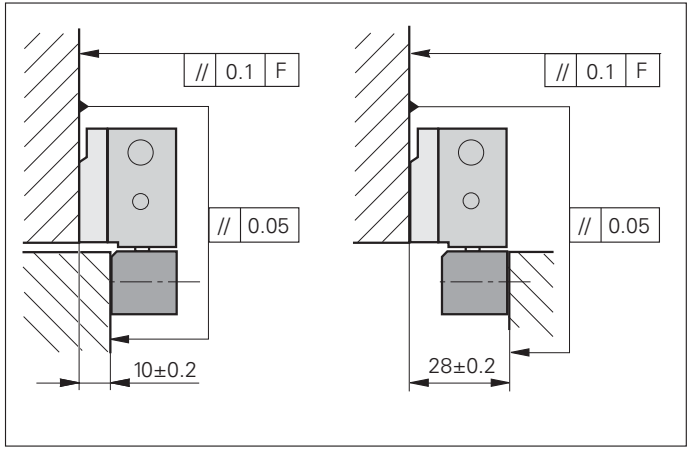

Silicon
(PAKTAN 6090)
ML > 620

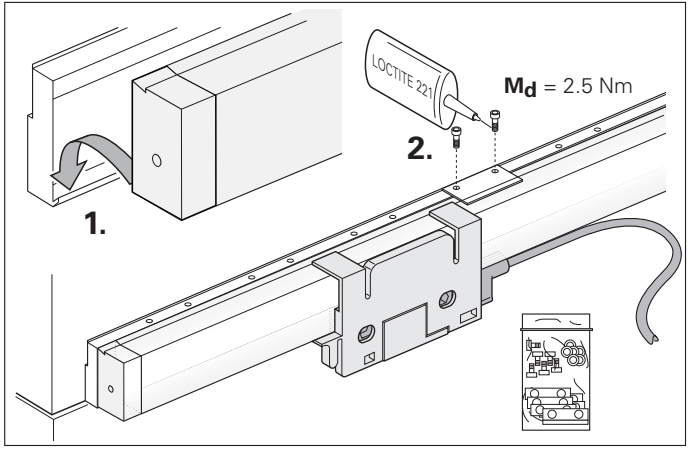

1 ± 0.3

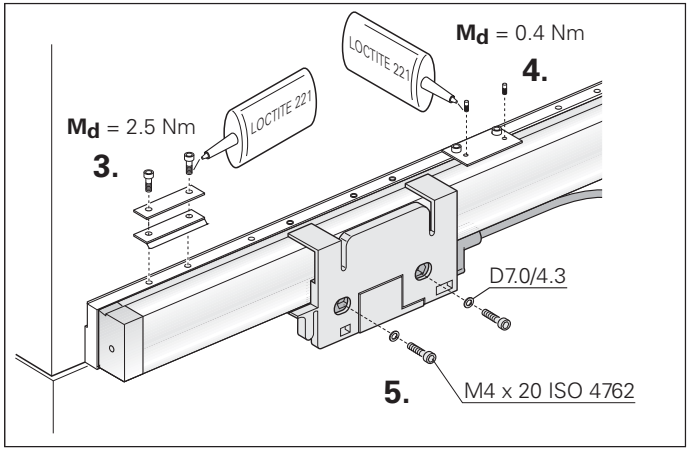


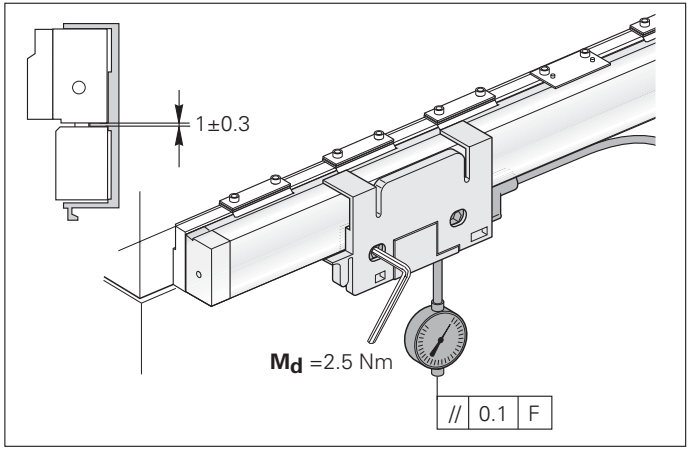

ML + 105
// 0.1 F

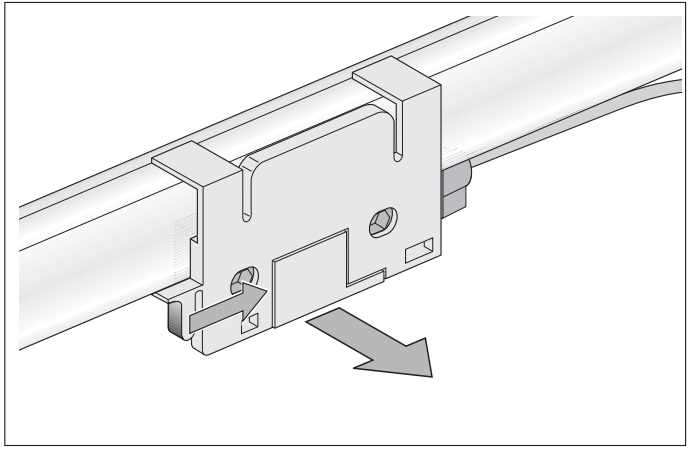

// 0.3 F
// 0.1 F
M_d = 5 Nm
A5.3 DIN 125/433
M5 x 10 ISO 4762

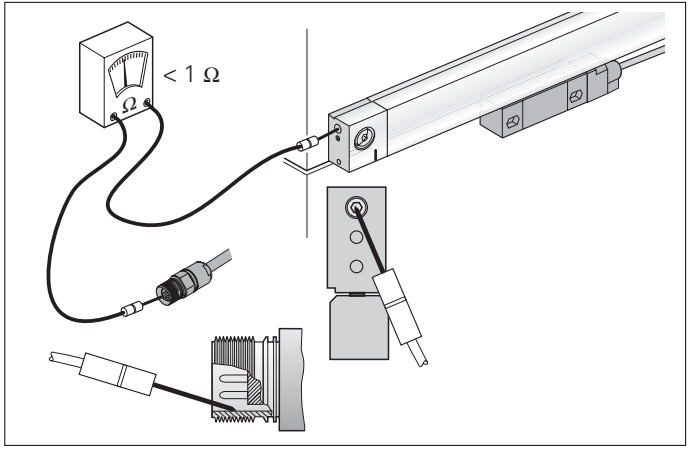

// 0.1 F
// 0.05
10±0.2
// 0.1 F
// 0.05
28±0.2


LOCTITE 221
M_d = 2.5 Nm
1.
2.

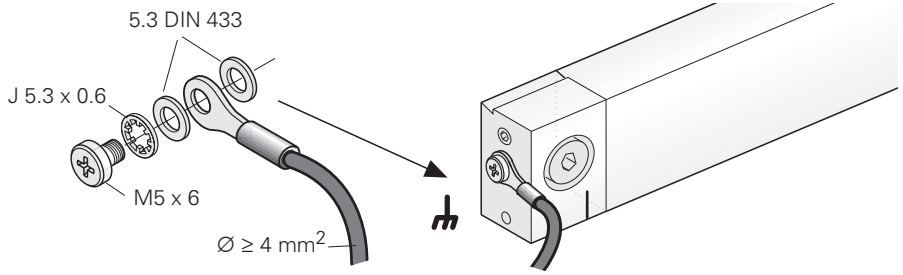

LOCTITE 221
M_d = 0.4 Nm
4.
M_d = 2.5 Nm
LOCTITE 221
3.
D7.0/4.3
5.
M4 x 20 ISO 4762

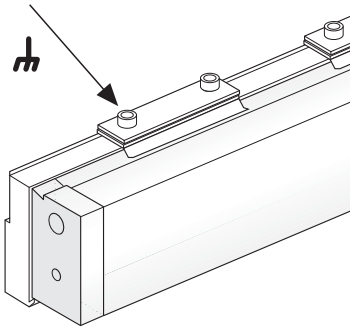

1±0.3
M_d =2.5 Nm
// 0.1 F

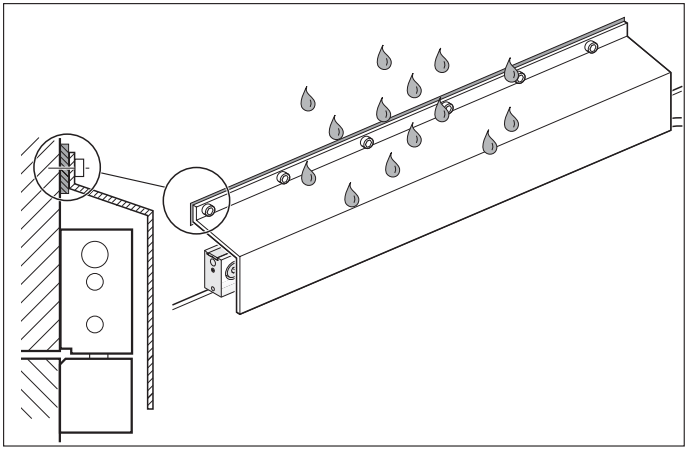


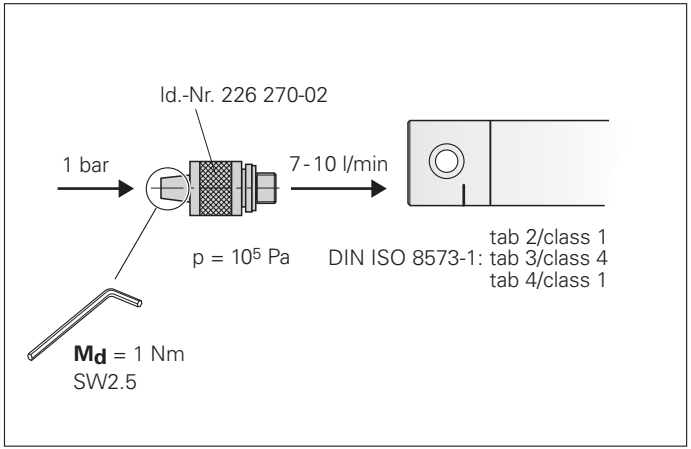


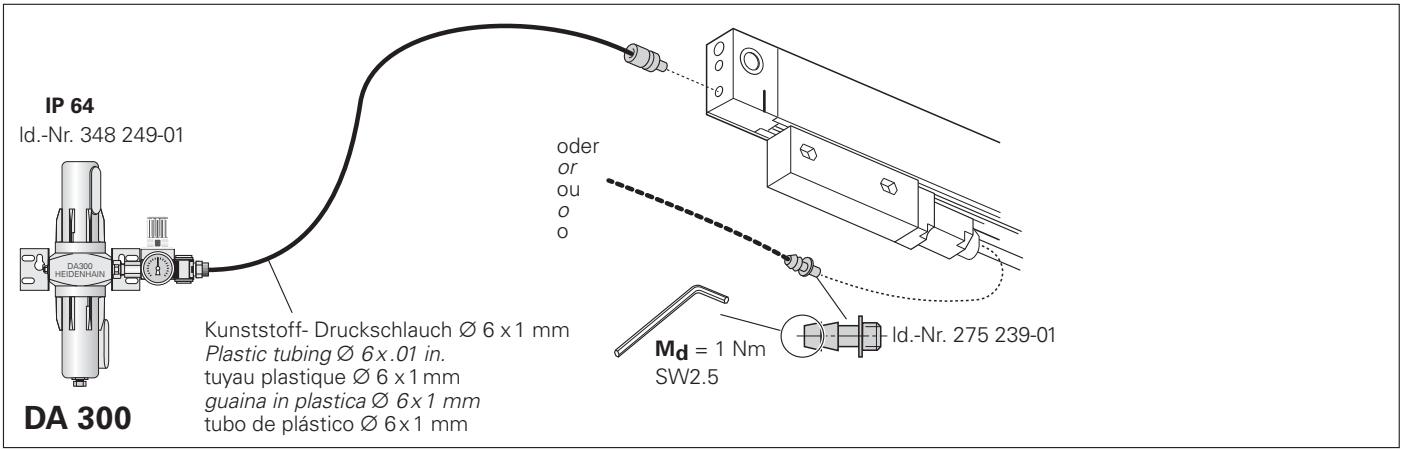
Bei Erdungsproblemen zusätzlich Endstück oder Montageschiene erden!
If grounding problems occur, ground also the end piece or mounting spar!
En cas de problèmes de mise à la terre, mettre aussi l'embout ou le rail de montage à la terre!
Nel caso di problemi di messa a terra, mettere a terra anche il blocchetto terminale o la guida di montaggio!
¡En caso de problemas de tierras, poner a tierra adicionalmente la pieza final o la guía de montaje!

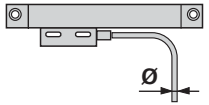
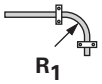
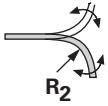


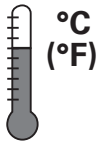


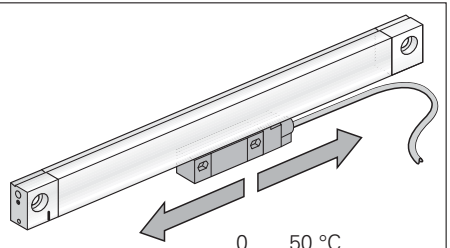



Id.-Nr. 226 270-02
1 bar
7 - 10 l/min
p = 10^5 Pa
tab 2/class 1
DIN ISO 8573-1: tab 3/class 4
tab 4/class 1
M_d = 1 Nm
SW2.5

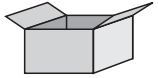

IP 64
Id.-Nr. 348 249-01
DA300
HEIDENHAIN
DA 300
oder
or
ou
o
o
Kunststoff- Druckschlauch Ø 6 x 1 mm
Plastic tubing Ø 6 x .01 in.
tuyau plastique Ø 6 x 1 mm
guaina in plastica Ø 6 x 1 mm
tubo de plástico Ø 6 x 1 mm
M_d = 1 Nm
SW2.5
Id.-Nr. 275 239-01

		
Ø 6 mm	$R_1 \geq 20$ mm	$R_2 \geq 75$ mm
Ø 10 mm	$R_1 \geq 35$ mm	$R_2 \geq 75$ mm
Ø 8 mm	$R_1 \geq 40$ mm	$R_2 \geq 100$ mm

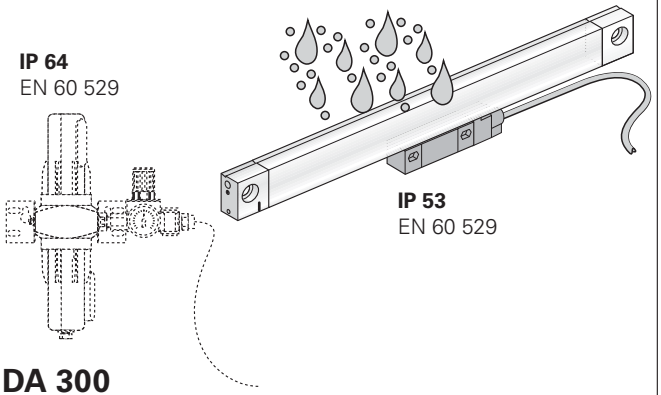


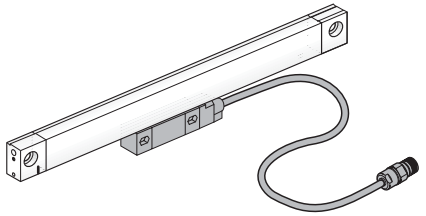


0 ... 50 °C
(32 ... 122 °F)



–20 ... 70 °C
(– 4 ... 158 °F)





RS-485

CLOCK

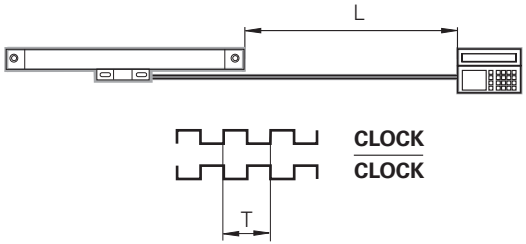
$\overline{\text{CLOCK}}$

U_P = 5 V ± 5 %

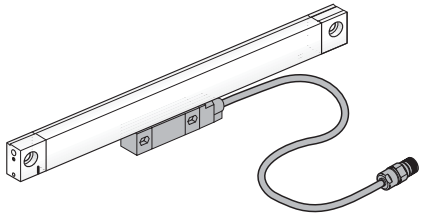
(max. 300 mA)

EN 50 178/4.98; 5.2.9.5
IEC 364-4-41: 1992; 411(PELV/SELV)

(siehe, *see,* voir, *vedi,* véase
HEIDENHAIN D 231 929)



L	T		f
10 m	0.5...10µs	≙	2000...100 kHz
50 m	1 ...10µs	≙	1000...100 kHz
100 m	2.0...10µs	≙	500...100 kHz
150 m	3.3...10µs	≙	300...100 kHz



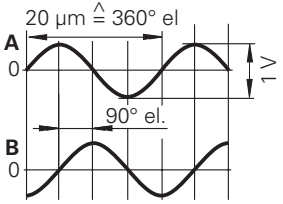
A (20 µm ≙ 360° el)

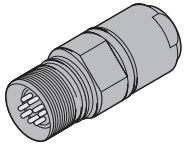
B (20 µm ≙ 360° el)

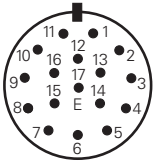
DATA

$\overline{\text{DATA}}$

RS-485



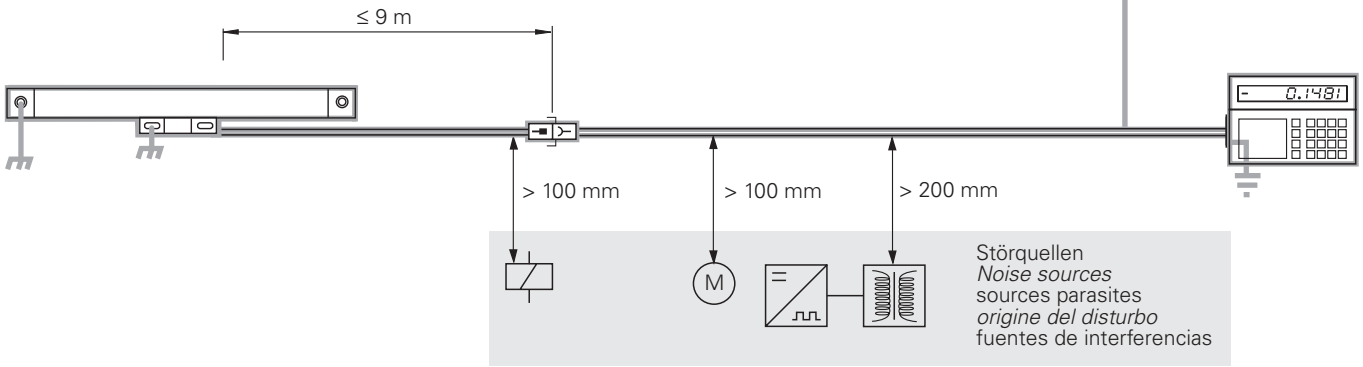


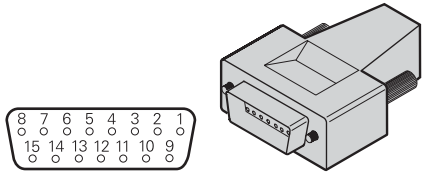


1) Außenschirm auf Gehäuse
External shield on housing
blindage externe sur boîtier
schermo esterno sulla carcassa
blindaje externo a carcasa

2) Innenschirm
Internal shield
blindage interne
schermo interno
blindaje interno

15	16	12	13	14	17	8	9	7	10	1)	1	4	11
A		**B**		**DATA**	**$\overline{\text{DATA}}$**	**CLOCK**	**$\overline{\text{CLOCK}}$**	**5 V U_P**	**0 V U_N**		**5 V sensor**	**0 V sensor**	2)
+	–	+	–										
grün/schwarz *green/black* vert/noir *verde/nero* verde/negro	gelb/schwarz *yellow/black* jaune/noir *giallo/nero* amarillo/negro	blau/schwarz *blue/black* bleu/noir *azzurro/nero* azul/negro	rot/schwarz *red/black* rouge/noir *rosso/nero* rojo/negro	grau *gray* gris *grigio* gris	rosa *pink* rose *rosa* rosa	violett *violet* violet *viola* violeta	gelb *yellow* jaune *giallo* amarillo	braun/grün *brown/green* brun/vert *marrone/verde* marron/verde	weiß/grün *white/green* blanc/vert *bianco/verde* blanco/verde		blau *blue* bleu *azzurro* azul	weiß *white* blanc *bianco* blanco	

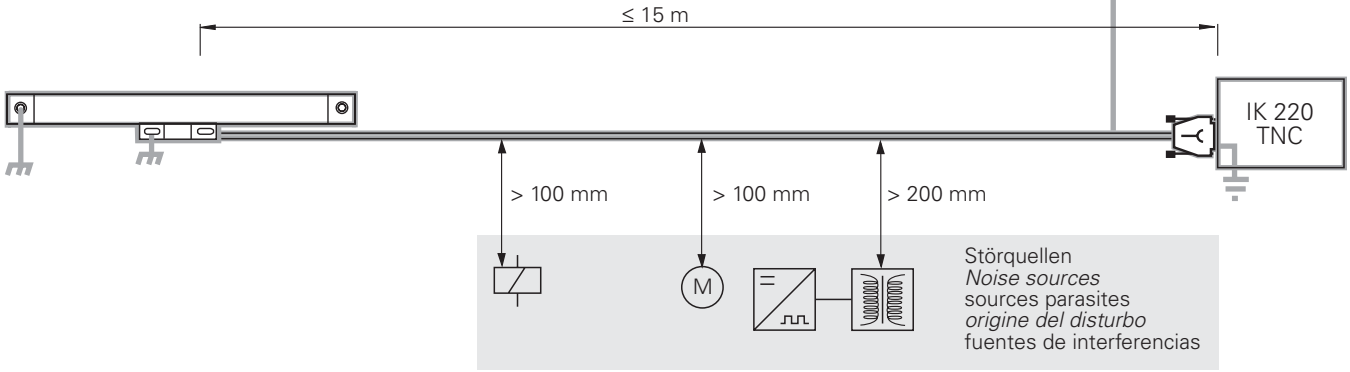




1) Außenschirm auf Gehäuse
External shield on housing
blindage externe sur boîtier
schermo esterno sulla carcassa
blindaje externo a carcasa

2) Innenschirm
Internal shield
blindage interne
schermo interno
blindaje interno

3	4	6	7	5	8	14	15	1	2		9	11	13
A		**B**		**DATA**	**$\overline{\text{DATA}}$**	**CLOCK**	**$\overline{\text{CLOCK}}$**	**5 V U_P**	**0 V U_N**	1)	**5 V sensor**	**0 V sensor**	2)
+	–	+	–										
grün/schwarz *green/black* vert/noir *verde/nero* verde/negro	gelb/schwarz *yellow/black* jaune/noir *giallo/nero* amarillo/negro	blau/schwarz *blue/black* bleu/noir *azzurro/nero* azul/negro	rot/schwarz *red/black* rouge/noir *rosso/nero* rojo/negro	grau *gray* gris *grigio* gris	rosa *pink* rose *rosa* rosa	violett *violet* violet *viola* violeta	gelb *yellow* jaune *giallo* amarillo	braun/grün *brown/green* brun/vert *marrone/verde* marron/verde	weiß/grün *white/green* blanc/vert *bianco/verde* blanco/verde		blau *blue* bleu *azzurro* azul	weiß *white* blanc *bianco* blanco	



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